

CLAIMS

1. A magnetic migration and reversal display panel comprising at least a dispersion liquid having a yield value obtained by dispersing, in a dispersion medium comprising a colorant, micro-magnets having magnetic poles that differ in color and that differ in color from the dispersion medium as well, and support members that retain the dispersion liquid, wherein the micro-magnets comprise two or more kinds of magnetic materials with different coercive forces.

2. The magnetic migration and reversal display panel according to claim 1, wherein the micro-magnets comprise at least two or more kinds of magnetic material including a first magnetic material comprising a high coercive force material and a second magnetic material comprising a low magnetic coercive force material.

3. The magnetic migration and reversal display panel according to claim 1 or 2, wherein for the two kinds of magnetic material within the micro-magnets, the coercive force of the first magnetic material is 65.0 kA/m or more and 600 kA/m or less, and the coercive force of the second magnetic material is less than 65.0 kA/m.

4. The magnetic migration and reversal display panel according to any of claims 1 to 3, wherein the coercive force of the first magnetic material is two or more times the coercive force of the second magnetic material.

5. The magnetic migration and reversal display panel according to any of claims 1 to 4, wherein the first magnetic material is hexagonal magnetoplumbite-type ferrite, and the second magnetic material is at least one magnetic materials selected from the group consisting of magnetite, maghematite, cobalt-deposited magnetite, and

cobalt-deposited maghematite.

6. The magnetic migration and reversal display panel according to any of claims 1 to 5, wherein the coercive force of the micro-magnets is 4.0 kA/m or more and 600 kA/m or less.

7. The magnetic migration and reversal display panel according to any of claims 1 to 6, wherein the residual magnetization per unit mass of the micro-magnets is 1 to 35 A·m²/kg, and the saturation magnetization per unit mass of the micro-magnets is 1 to 100 A·m²/kg.

8. The magnetic migration and reversal display panel according to any of claims 1 to 7, wherein the yield value of the dispersion liquid is 0.15 to 7.5 N/m².

9. The magnetic migration and reversal display panel according to any of claims 1 to 8, wherein a colorant contained in the dispersion liquid has a desired color tone.

10. The magnetic migration and reversal display panel according to any of claims 1 to 9, wherein a fluorescent coloring agent is contained in the dispersion medium and/or micro-magnets.

11. The magnetic migration and reversal display panel according to any of claims 1 to 10, wherein an antistatic agent is contained in the dispersion liquid.

12. A magnetic migration and reversal display panel comprising at least a dispersion liquid having a yield value obtained by dispersing, in a dispersion medium comprising a colorant, micro-magnets with magnetic poles that differ in color and that differ in color from the dispersion medium as well, and support members that retain the dispersion liquid, wherein writing selectively representing one of two display colors can be obtained by selection of the magnetic poles of an external magnetic field, wherein a specified pole of the external magnetic

field is selected at a region where writing is to be formed and the external magnetic field is applied to act on the region from the front surface side for causing migration or migration and reversal of the micro-magnets in the dispersion liquid, and thereby displaying the color tone of a specified surface, which is a surface of the magnetic pole of the micro-magnets opposite to the selected magnetic pole of the external magnetic field.

13. A magnetic migration and reversal display method, wherein the magnetic migration and reversal display panel according to any of claims 1 to 12 is used, the method comprising:

forming writing by causing an external magnet for writing to act on the micro-magnets for causing migration and/or reversal of the micro-magnets, and thereby causing the color tone of the specified surface of the micro-magnets to be displayed; and then

changing the color tone of the writing by reversing the micro-magnets forming the writing by causing a magnetic field of the magnetic pole opposite to the magnetic pole of the external magnet for writing to act from the same surface side within a range that other micro-magnets that do not form the writing are not caused to migrate.